BUDGET ITEM JUSTIFICATION SHEET

DATE February 2004

APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	SUBHEAD
OP,N - BA2 COMMUNICATIONS & ELECTRONIC EQUIPMENT	CRYPTOLOGIC EQUIPMENT 3501	521V

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	TO COMP	TOTAL
QUANTITY									
COST	$21.5	$24.5	$26.1	$26.2	$27.5	$27.4	$27.0	Continuing	Continuing

NARRATIVE DESCRIPTION JUSTIFICATION: This line supports the Cryptologic Carry-on Program (CCOP), the Signals Analysis Laboratory Program (SAL), the Navy Elint Program and the IW PROGRAM.

CRYPTOLOGIC CARRY-ON EQUIPMENT: This program procures state-of-the-art, Commercial Off-The-Shelf (COTS) signal acquisition equipment (hardware and software) in response to Combatant Command requirements for a quick-reaction surface, subsurface and airborne cryptologic carry-on capability. The equipment is procured according to the overall requirements detailed in the Shipboard Information Warfare (IW)/Cryptologic System (SIWCS) ORD (Serial Number: 537-06-99) of 9 Dec 99. Due to a continually changing threat environment, detailed requirements are dynamic and equipment procured varies by quantity and type. Equipment can be suites configured for many targets and tasking, or target specific subsystems that can either operate standalone within cryptologic spaces or as an add-on to existing equipment. Hardware procurement includes: receivers, recorders, Transportable-Radio Direction Finding (T-RDF) systems, tactical computers and related peripherals, antennas, Electronic-Warfare Support Measures (ESM) systems, and advanced signal and search equipment including spectrum analyzers, VXI chassis/cards and associated portable Special Intelligence communications equipment. CCOP equipment is installed in AN/SSQ-99 vans for deployment, and as an augment to cryptologic capabilities on subsurface, surface and air platforms . There are approximately 100 cryptologic capable surface ships in the current Navy inventory. Each of these ships are potential users of this carry-on equipment, depending on deployment schedules and the tempo of operations. In addition, there are numerous subsurface and air platforms that are also potential users. The temporary installation of equipment is coordinated through Fleet Electronic Support (FES) personnel. A primary product of this line is the Advanced Cryptologic Carry-on Exploitation System (ACCES). The outdated SSQ-80A(V) analog systems were converted to ACCES by modernizing them with VXI-based digital Signal Processing (DSP) capabilities and an open, modular architecture that provides flexibility and vastly increased capabilities. Funds continue to procure ACCES core architecture system upgrades to provide affordable additional functionality to the Combatant Commands. In FY03, a significant ACCES upgrade was introduced to begin replacement of aging hardware suites.T-RDF (AN/SSQ-120 (V)) has adeptly satisfied Combatant Command requirements for organic direction finding capabilities; the system covers an extremely wide frequency spectrum, is low cost and highly accurate. T-RDF is temporarily installed on ACCES equipped ships. T-RDF below deck systems have been procured to service all T-RDF pre-groomed ships in inventory as required to meet deployment schedules. T-RDF below deck systems reached the Fleet specified inventory objective in FY03.

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GLOBAL SIGNAL ANALYSIS LABORATORY (GSAL): The GSAL (Commander Naval Security Group CLASSIC SENSEI) Program directly supports tactical commanders with tailored and responsive feedback from theater Information Warfare (IW) exploitation operations. Navy Signal Analysis Laboratories (SALs) are forward based signal analysis and processing centers for complex communications and electronic emissions. SALs require advanced signal processing equipment to keep pace with information technology and continually changing target sets. Funds are required to procure signal analysis equipment and information transfer backbone to perform shore-based IW exploitation of data resulting from mobile collection missions, and to aid real-time exploitation efforts. Signal analysis is performed at the labs using various advanced exploitation analog and digital processing devices. Signal information is passed back to the labs via electronic means and various magnetic media The lab requires a high capacity Local Area Network (LAN) infrastructure tied in with the Global Command and Control System Maritime (GCCS-M) to properly conduct information and data exchange. GSAL signals analysis equipment exist at Naval Information Warfare Activity (NIWA), NSGA Rota, NSGA Yokosuka and NSGA Norfolk. Under Commander Naval Security Group transformational initiative titled GSAL realignment, GSAL signals analysis equipment is envisioned to support theater - level National Maritime operations at NSGA Kunia, NSGA Fort Gordon, and NSGA Rota, with forward digitization nodes (Smart Nodes) at Kadena Okinawa, JA, NSGA Bahrain, and Souda Bay Crete, Greece.

NAVY ELINT: To procure the Naval Electronic Support Sensor Enhancement (NESSE) augmentation package, a modular system that performs radar search, detection and data collection is support of a variety of surface ship requirements. NESSE will provide the tactical commander with automated reporting, enhanced connectivity and the ability to link with like sensors.

IW PROGRAMS: To procure equipment to support the augmentation of permanently installed cryptologic equipment with emergent cryptologic capabilities in support of operational and target developmental tasking.

MARITIME CRYPTOLOGIC DATABASE FACILITY (MCDF): The funding will provide for Advanced Database Replication for tactical intelligence networks, improved life cycle support to deployed systems, improved integration into Joint Shared Data Environments, and tighter integration of MIDB into the Maritime Cryptologic Architecture (MCA), and technology refresh.

COST ANALYSIS | **DATE** February 2004

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P-1 ITEM NOMENCLATURE: CRYPTOLOGIC EQUIPMENT 3501
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TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID CODE	PY TOTAL COST	FY02 QTY	FY02 UNIT COST	FY02 TOTAL COST	FY03 QTY	FY03 UNIT COST	FY03 TOTAL COST	FY04 QTY	FY04 UNIT COST	FY04 TOTAL COST	FY05 QTY	FY05 UNIT COST	FY05 TOTAL COST
	MAJOR CLAIMANCY -- SPAWAR														
1V555	PRODUCTION SUPPORT	A							1,010			1,307			1,381
1V043	T-RDF EQUIPMENT	A					5	369	1,845						
1V045	ACCES SYSTEMS	A					VAR		17,218	VAR		17,204	VAR		18,259
	TOTAL SPAWAR CONTROL								**20,073**			**18,511**			**19,640**
	MAJOR CLAIMANCY -- CNSG														
1V042	SIGNAL ANALYSIS LAB (SAL)						VAR		975	VAR		1,058	VAR		1,181
	NAVY ELINT									VAR		3,687	VAR		4,114
	FLEET ELECTRONIC SUPPORT						VAR		433	VAR		297	VAR		313
	MARITIME CRYPTOLOGIC DATABASE FACILITY (MCDF)									VAR		974	VAR		863
	TOTAL CNSG CONTROL								**1,408**			**6,016**			**6,471**
	GRAND TOTAL								**21,481**			**24,527**			**26,111**

REMARKS:

SAL - FY03 upgraded theater Si+A102gnals Processing Capability. FY04 and beyond continues technology refresh and implements equipment acquisition in support of NSG wide SAL transformation from 5 SALs to 3 SALS.